

(No Model.)

H. H. TUTTLE.
WASHING MACHINE.

No. 329,418.

Patented Oct. 27, 1885.

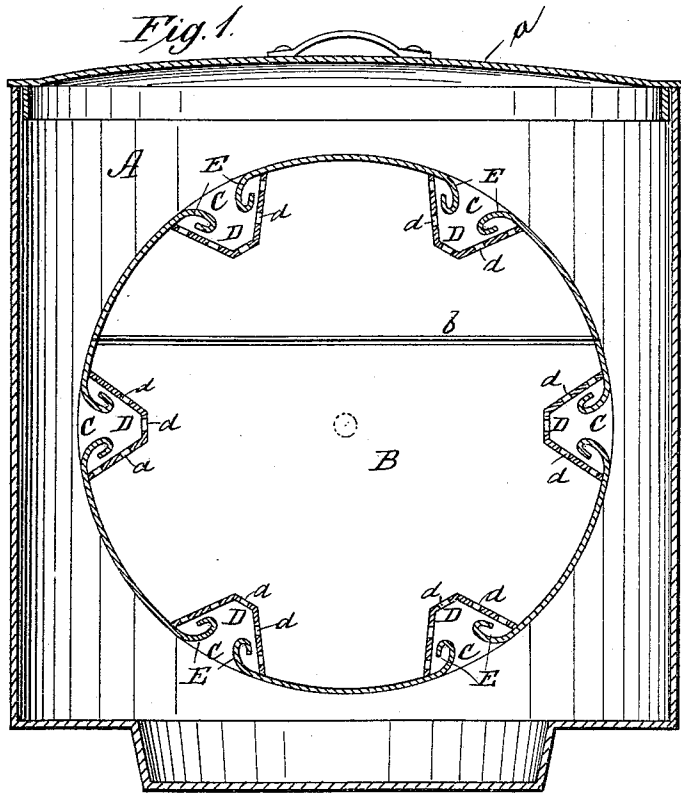
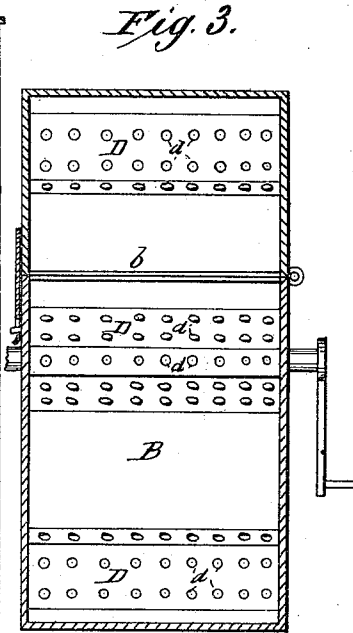
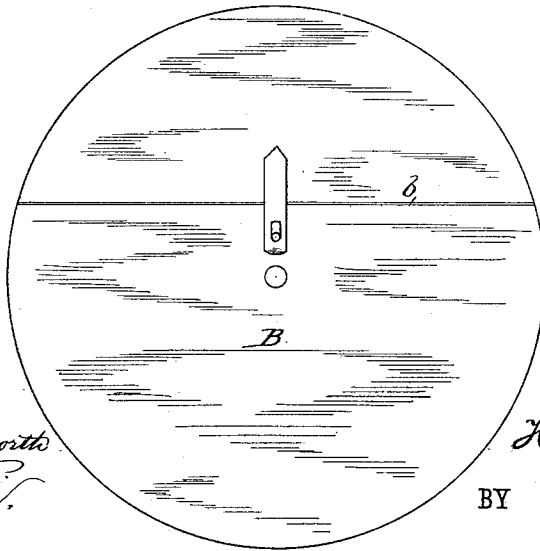


Fig. 2.



WITNESSES:

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UNITED STATES PATENT OFFICE.

HIRAM H. TUTTLE, OF PHOENIX, ARIZONA TERRITORY.

WASHING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 329,418, dated October 27, 1885.

Application filed July 3, 1885. Serial No. 170,640. (No model.)

To all whom it may concern:

Be it known that I, HIRAM H. TUTTLE, a citizen of the United States, residing at Phoenix, Maricopa county, Arizona Territory, have invented certain new and useful Improvements in Washing-Machines, of which the following is a description.

This invention is an improvement in that class of washing-machines in which a cylindrical clothes-carrier is supported and revolved within a steam boiler or case; and the invention consists in the novel construction of the cylindrical body, as will be hereinafter described and claimed.

In the drawings, Figure 1 is a vertical section of the boiler and the cylinder on a line drawn transversely through the latter. Fig. 2 is a side view of the cylinder, and Fig. 3 is a longitudinal section thereof.

The boiler-box A is common to this class of machines, and may have a hinged top, *a*, as is usual. The cylinder B is in practice journaled in this steam-box, and may be divided on a line, *b*, into segmental sections hinged together on one side, and having a suitable latch at the opposite side. The main portion or body of this cylinder is provided with peripheral openings C, elongated in the direction of the axis or journal. Steam-boxes D are located within the body, and are provided with a number of perforations, *d*, for the purposes presently set forth. These steam-boxes are curved or bent transversely, so they will project into the body and form rubbers and tumblers, and they are arranged over the inner side of the openings C, their side edges being secured on opposite sides of said openings, as shown. Water buckets or cups E are secured at one edge to the sides of the openings C, and project into said openings, and are curved or deflected inward toward the center or axis of the body. These cups may be integral with the rim of the body; but in order to make them larger, and consequently form them with greater carrying capacity, I preferably form them, one or both, separate from such rim, and attach them thereto by soldering or in other suitable manner. The object in the inward curvature or deflection of the cups or buckets is threefold. In the first place, it prevents the buckets from catch-

ing up the water directly as the cylinder enters it, and so impeding the motion of the cylinder, as would be the case were they not curved. Again, the inward deflection of the buckets operates to guide and direct the steam into the body. Lastly, and mainly, the inward deflection of said buckets provides for the elevation of water by the buckets on both sides of the openings, whether the cylinder be revolved in one or the other direction. Thus it will be seen that the buckets on the forward side of the openings with reference to the line of motion will elevate water as well as those on the opposite side. By this arrangement I am able to elevate twice the quantity of water that can be raised where but one bucket operates with each revolution of the machine, and the water, being discharged at different times as the cylinder is moved, is forced for a longer period and in greater quantities in streams onto the clothing. The elevation of this unusual quantity of water, it will be seen, is effected without any outwardly-projected buckets or carriers on the cylinder, and the operation thereof is not made any more laborious, but, in fact, otherwise, as the peculiar formation by which the water is raised renders the operation of the machine easier, as before fully set forth.

In operation, the clothes are placed in the cylinder, and it is revolved by an ordinary hand-crank or in other suitable manner. As the cylinder is turned through the boiling water, steam passes through the openings C into and through the clothing, and as the buckets pass through the water they become filled, and empty in streams as they are elevated in the operation of the machine. The steam-boxes, it will be seen, operate as rubbers, and tumble the clothing about, assisting in the separation of the dirt, and so facilitating the operation. As the operation proceeds, the steam is forced upward through the cylinder from below and through the clothing, and streams of hot water are discharged onto the clothing from above, giving a continuous, constant, and uniform pressure of hot water and steam from both top and bottom, and the clothing is meanwhile rubbed and agitated by the inwardly-projecting steam-boxes.

The cylinders constructed as set forth may

be manufactured and sold separately to the trade or user, and be applied by the purchaser to the ordinary boiler or steam-case.

Having thus described my invention, what I
5 claim as new is—

A washing-machine cylinder consisting of the body having peripheral openings elongated in the direction of its axis, foraminated steam-boxes located within said body and hav-
10 ing their side edges secured on opposite sides

of the openings therein, and water-cups connecting at one edge with the sides of the opening in the body and having their other edges projected into said openings and deflected toward the center of the body, substantially as
15 and for the purposes set forth.

HIRAM H. TUTTLE.

Witnesses:

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